AMENDMENTS TO THE CLAIMS

Please replace the pending claims with the following claim listing:

~~[1]~~1. (Currently Amended) A semiconductor optical device ~~in which~~ comprising a mesa-stripe stacked body including at least a p-type cladding layer, an active layer and an n-type cladding layer ~~is~~ formed on a p-type semiconductor substrate, a current-blocking layer ~~is~~ buried in both sides of said stacked body, and an n-type over-cladding layer and an n-type contact layer ~~are~~ disposed on said current-blocking layer and said stacked body, ~~said semiconductor optical device being characterized in that:~~ wherein said n-type over-cladding layer is made of a semiconductor crystal having a property for flattening a concavo-convex shape of upper surfaces of said current-blocking layer and said stacked body.

~~[2]~~ 2. (Currently Amended) A semiconductor optical device according to claim 1, ~~characterized in that~~ wherein an n-type dopant for said semiconductor crystal is a group VI element.

~~[3]~~3. (Currently Amended) A semiconductor optical device according to claim 2, ~~characterized in that~~ wherein the n-type dopant is selenium.

~~[4]~~4. (Currently Amended) A semiconductor optical device according to claim 3, ~~characterized in that~~ wherein doping concentration of the selenium is equal to or higher than 5×10^{18} cm^{-3}.

[5]5. (Currently Amended) A semiconductor optical device according to claim 2, ~~characterized in that~~ wherein said semiconductor crystal is an InP crystal.

[6]6. (Currently Amended) A semiconductor optical device according to claim 5, ~~characterized in that~~ wherein the n-type dopant is selenium.

[7]7. (Currently Amended) A semiconductor optical device according to claim 6, ~~characterized in that~~ wherein doping concentration of the selenium is equal to or higher than 5×10^{18} cm^{-3}.

[8]8. (Currently Amended) A semiconductor optical device according to claim 1, ~~characterized in that~~ wherein said current-blocking layer is a high-resistive layer made of a semi-insulating semiconductor crystal.

[9]9. (Currently Amended) A semiconductor optical device according to claim 8, ~~characterized in that~~ wherein said high-resistive layer is doped with ruthenium.

[10]10. (Currently Amended) A semiconductor optical device according to claim 9, ~~characterized in that~~ wherein said high-resistive layer is made of an InP crystal doped with ruthenium.

~~[11]~~11. (Currently Amended) A semiconductor optical device according to claim 1, ~~characterized in that~~ wherein said current-blocking layer is formed of a high-resistive layer made of an n-type semiconductor crystal and a semi-insulating semiconductor crystal.

~~[12]~~12. (Currently Amended) A semiconductor optical device according to claim 11, ~~characterized in that~~ wherein said high-resistive layer is made of a semi-insulating semiconductor crystal doped with at least one of ruthenium and iron.

~~[13]~~13. (Currently Amended) A semiconductor optical device according to claim 12, ~~characterized in that~~ wherein said high-resistive layer is made of an InP crystal doped with at least one of ruthenium and iron.

~~[14]~~14. (Currently Amended) A semiconductor optical device according to claim 1, ~~characterized in that~~ wherein said current-blocking layer is made of an n-type semiconductor crystal and a p-type semiconductor crystal.

~~[15]~~15. (Currently Amended) A semiconductor optical device according to claim 14, ~~characterized in that~~ wherein said current-blocking layer is made of an n-type InP crystal and a p-type InP crystal.

~~[16]~~16. (Currently Amended) A method of fabricating a semiconductor optical device~~,~~ ~~characterized by~~ comprising the step of:

forming a stacked body including at least a p-type cladding layer, an active layer and an n-type cladding layer on a p-type semiconductor substrate;

processing said stacked body into a mesa stripe-like shape;

burying a current-blocking layer in both sides of said mesa stripe-shaped stacked body;

forming an over-cladding layer to flatten a concavo-convex shape of upper surfaces of said current-blocking layer and said stacked body; and

forming an n-type contact layer on said n-type over-cladding layer.